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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,086	08/11/2006	Eihachiro Kato	3749-0113PUS1	9472
2292 7590 09/16/2009 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER				
BADR, HAMID R				
ART UNIT		PAPER NUMBER		
1794				
NOTIFICATION DATE		DELIVERY MODE		
09/16/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

## Office Action Summary

**Application No.**

10/581,086

**Applicant(s)**

KATO ET AL.

**Examiner**

HAMID R. BADR

**Art Unit**

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/86)  
Paper No(s)/Mail Date 5/31/2006, 8/7/2009
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 9-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 9 is indefinite for "wherein the means to prepare the mass of soybeans and sprouted brown rice is a means which places a layer....". It is unclear what is meant by this phrase.
4. Claim 10 is indefinite for "wherein the means to prepare the mass of soybeans and sprouted brown rice is a means using a device for wrapping bean jam". It is unclear what is meant by this phrase. Claim 10 is also indefinite for "wrapping bean jam". It is not clear what is meant by this phrase.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hachmeister et al. (1993, Tempeh: A mold modified indigenous fermented food made from soybeans and/or cereal grains; hereinafter R1)

7. R1 discloses the full process of making tempeh using soybeans fermented by *Rhizopus oligosporous*. R1 discloses the traditional tempeh fermentation using soybeans (page 143, Fig. 2 Flow diagram for homemade tempeh and Fig. 3 Flow diagram for small factory production of tempeh). The type of mold, and incubation temperature and other preparation steps are fully disclosed.
8. R1 gives full account of industrial production of tempeh (page 145 to page 150).
9. R1 discloses that the *Rhizopus* strain used for tempeh production should have high lipolytic and proteolytic activities. (page 148, Col. 1, third paragraph).
10. R1 also gives details of the cereal grain tempeh stating that the steps involved in the production of tempeh-like products using cereal grains as substrates are very similar to those outlined for the soybean tempeh processing. Rice soybean tempeh is one the cereal grain tempehs. R1 discloses that in order to prepare the substrate for fermentation, soybeans must be dehulled and wheat must be cracked and that proper preparation of the substrate allows the mold to reach the nutrients in the cotyledons. (page 172, col. 1, Background information).
11. R1 discloses that it has been found the tempeh produced from whole grains lacked integrity and was not fit for slicing. It obvious that slightly modifying the surface of the grain via cracking, slicing or splitting is essential for good growth of the mold. Given that modification of the whole grain for mold growth is disclosed by R1, using sprouted rice as presently claimed would be obvious. The sprouted (germinated ) grain would have the amylase system activated so that the tempeh mold which is not usually an

amylase producer will grow better on the substrate. It would be also obvious to use brown rice for the color it will impart to the finished product.

12. R1 states that it has been reported that soybean and rice had amino acid patterns that complement each other; therefore combination and fermentation of these two substances resulted in a tempeh with a substantially increased protein quality. (page 176; Col. 1, bottom of the text under the Table).

13. R1 discloses that in wheat tempeh production, a ratio of 3 parts soybeans to 1 part wheat or combination of 3 part wheat to 1 part soybeans yielded a very acceptable product. (page 172, col. 2, paragraph 4) Therefore, the ratios of rice to soybeans, as presently claimed, would have been within the skill of the art.

14. The arrangement of layers of soybeans/rice as presently claimed would be obvious to an artisan. It would also be obvious to expose different layers of substrates to air for a more uniform growth of tempeh mold.

15. Since all aspects of either soybean tempeh or soybean/grain tempeh were known at the time the invention was made, a person of skill in art would have followed the teachings of R1 to prepare a soybean/brown rice tempeh. As disclosed by R1, this combination would have yielded a product of higher protein quality. Absent any evidence and based on the teachings of the cited reference, there would be a reasonable expectation of success in making the mixed soybean/brown rice tempeh.

### ***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 3,243,301 discloses a mixed soybean/grain tempeh using

*Rhizopus oligosporous*. This document specifically discloses that when the mold does not produce amylolytic enzymes, pretreatment of the grain plays a crucial role. This document also emphasizes that precracking of the cereal grain kernels and a fully hydrated state are required if the mold is to grow extensively.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAMID R. BADR whose telephone number is (571)270-3455. The examiner can normally be reached on M-F, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hamid R Badr  
Examiner  
Art Unit 1794

/KEITH D. HENDRICKS/  
Supervisory Patent Examiner, Art Unit 1794